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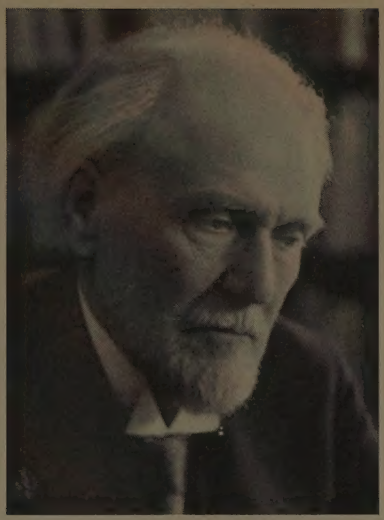

Gustav Cassel

GUSTAV CASSEL 75 YEARS OF AGE

20. 10. 1941

FOR MORE THAN TWENTY YEARS the first page of this quarterly, almost without exception, has borne the name of Gustav Cassel. During the eventful times from the beginning of the nineteen twenties Cassel has analyzed in these columns important features in world economic trends. His eminent capacity for distinguishing the essential factors in economic phenoma is paralleled by his ability to present his observations in a manner which, by its studied conciseness, reveals the master hand.

A wide circle of readers all over the world have given numerous tokens of their keen appreciation of the long series of Cassel's articles in this periodical. We venture, in the name of this circle of readers, to convey to the author and scientist Gustav Cassel a tribute of homage and cordial wishes for his welfare when he now enters upon the fourth quarter-century of his life.

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RECENT FACTORS IN PROGRESS

BY PROFESSOR GUSTAV CASSEL

In a couple of articles in this Quarterly (October 1939 and January 1941) I discussed, with special reference to the United States, the question of the bases of economic progress, and contended that in 1929 there was no objective necessity for the interruption of the progress which had previously been normal. The more one studies this question, the more one finds what universal importance it assumes. The wide-spread belief that the development of the world's productive capacity is drawing to an end, and that the human race, broadly speaking, is thus reduced to living on the resources it now possesses, is liable to have a decisive, and very dangerous, influence both on general world politics and on internal social policy in the several countries. Such a notion tends to place a distribution of the available resources in the foreground, thus inducing human forces to devote excessive attention to a problem which can never be solved in such a way that even a tolerably satisfactory degree of prosperity for all can be assured. This idea of the distribution of resources has been at the root of the present war and has banefully affected the world-wide discussion as to what is to come afterwards. People suppose that the rapid progress before the former world war was possible only because new lands could always be opened up for colonization or immigration, and because new supplies of raw materials were always available. They also imagine that the whole course of technical development had been brought to maturity at the time of the first world war, and that afterwards nothing new of essential importance for the satisfaction of human needs was to be expected.

Here lies the fundamental error. The truth is exactly the reverse. Indeed, one may venture to assert that never before within two decades has such extensive progress been made in the sciences and technical processes which provide for the satisfaction of human needs as precisely during the twenty years between the two world wars. During that period, as never before, revolutionary developments in science and technology have proceeded from fundamental principles, and it therefore seems reasonable to expect a continued development of unparalleled intensity.

It is, perhaps, in our knowledge of the nature of matter that the most sweeping changes have occurred. The nineteen-twenties and thirties were marked by many new and surprising results of atomic research which involved exploding not only the atoms themselves, but also the whole previous framework of physics. It can scarcely be supposed that such revolutionary developments would fail to have a repercussion on the technique of production and the satisfaction of needs. The important uses to which radium and radio-active substances have been applied indicate what rich fruitage such deep delving into the soil of science can produce. We may particularly remember the synthesis of new radio-active elements, for which Professor Joliot and his wife (Madame Joliot-Curie) received the Nobel prize for chemistry in 1935. Here we are confronted with real new creation.

In chemistry the study of giant molecules built up of more than ten thousand, perhaps millions of atoms, has rapidly assumed such importance that macro-molecule chemistry is beginning to be distinguished as a separate branch of chemical science. This development has already led to magnificent technical results. In the first place we note the various artificial fibres, which will doubtless prove to be of durable importance for the textile industry. Of great importance also are the many other synthetic materials which macro-molecule chemistry is now placing from time to time at the disposal of technical industries. We have transcended the stage when we contented

ourselves with finding substitutes for already known natural products. In rivalry with nature we are producing materials possessing particularly valuable properties from various points of view. The discovery that molecules can be built up of a previously undreamt-of number of atoms will obviously open up immense possibilities and constantly call forth new suggestions for the solution of technical problems. Nobody can now see any limits to the scientific and technical expansion which will issue from this new field for systematic creation.

People often complain that our civilization is unduly mechanical. But the fault-finders little know what they are talking about. They themselves take it for granted that at any moment they must have a telephone, a wireless set, a motor car, a motor bus, or at any rate simply a cycle, at their disposal, but they do not reflect that such things could not possibly be produced at a reasonable price except by a mass production where mechanization has been carried to its utmost limit. This mechanization has, of course, proceeded during the twenty years' period in question and has achieved results of the greatest importance for the provision for human needs. A striking example is the introduction of new hard metal alloys, which in the course of a few years has brought about quite a revolution in the working of metals and other hard substances. As productive capacity with a given amount of machinery and man power has thereby been increased many times over, this improvement entails not only a thorough reorganization of the metal industry, but also possibilities of a much larger and much cheaper production.

In spite of all, the course of development during the twenty years' period between the world wars can scarcely be said to have been mainly characterized by continued mechanization. It is perhaps within the fields of chemistry and biology that the principal progress has been made. Our newly acquired knowledge regarding the part played by catalyzers in chemical processes has been of general importance for the development of chemistry. Facilities have thus been afforded for systematic building up of chemical syntheses of paramount importance for industrial development. Progress in the production of alloys and in welding processes has likewise been of such a nature that it is bound to lead to far-reaching technical developments of a creative character.

In the field of biological chemistry we are on the eve of revolutionary changes which go back to the fundamental principles of science. Vitamin and hormone research has brought us a first step nearer the secret of the life process. We have learnt how infinitely little we knew before, and how utterly biology had been groping in the dark. Is it then not to be expected that these new surprising discoveries will lead to an immense enrichment of our knowledge of life and give us facilities for a better regulation of our entire conduct of life? In medicine as well as in regard to nutrition we have already attained practical results of such sweeping importance that one can speak of a radical reform. New developments in this field will proceed at an accelerated pace, and our knowledge of the importance of vitamins and hormones for life will doubtless not only revolutionize nutrition and make it infinitely richer, but will also conduce to create a new standard of public health, physical and mental.

Also in medical research results have been attained which are already serving as a basis for new lines of development of daily increasing practical importance. Virus research has joined forces with bacteriology, and macro-molecule chemistry has thus opened up new avenues for the suppression of terrible and wide-spread diseases. In addition, we can now note three discoveries to which doctors attach revolutionary importance for internal medicine: insulin, liver therapy and the sulphonamide preparations. The vanquishment of diabetes, the successful campaign against pernicious anemia, the utilization of various derivatives of sulphonamide for the suppression of pneumonia and a number of other dangerous bacterial diseases mark an advance which is not only of immeasurable importance in itself, but also by its very nature holds out prospects of a rich continuation in the future.

Considerable progress has been made in agriculture, both as regards the tilling of the soil and the efficiency of harvesting. Plant-breeding has been developed into systematic creation, which for agriculture has proved to be fruitful beyond all expectations, and which seems to open up

numerous possibilities also for rational forestry. Considerable progress ha been made also in the breeding of animals.

I have merely indicated here some of the principal examples of the immense advance which manifested itself during the period between the world wars. If we addressed a circular enquiry to the experts, we should obtain a far more comprehensive picture of what this period has meant for human culture.

When a healthy and amply branching tree grows, the number of starting-points for new growth increases by rapid progression. This is the case also with the sciences and technology which provide for the satisfaction of human needs. One understands nothing of the essential nature of economic progress if one imagines that any new discoveries mark the culmination of development. On the contrary, the further development proceeds, the richer the possibilities for continued development. The supposition that western culture has now come to a termination, and that we must settle down to stagnation, is devoid of any foundation.

Quite as groundless is all the talk about the unduly materialist tendency and soulless character of our civilization. The scientific and technical progress mentioned here is of fundamental importance not only for our views of the essential nature of material and life, and thus in the highest sense for our culture, but also for all practical endeavours to improve the provision of needful supplies and promote the well-being of mankind. Only ignorance or sheer thoughtlessness can condemn a cultural development but for which the general prosperity and the brighter future for the whole of mankind which all of us are dreaming of could never be attained. And the talk about soullessness would soon be hushed if people were only able to penetrate into the spiritual character of those cultural endeavours and realize how they are sustained by one grand general aim, namely to give man increasing mastery over nature and to intervene with creative intent in the world which has been handed down to us.

The new structure of the world economy which must follow after the war is now being eagerly discussed in different circles. It is desirable that people would then give less thought to a strictly regulated distribution of the extremely limited resources which will be left, and devote more attention to the numerous possibilities which will be opened up for progress. For that progress they would then be impelled to provide the best conditions, which doubtless include facilities for individuals as well as for nations, in free competition, to produce something new.

But, whilst one would thus acquire a brighter and more fruitful view of the problem, it should at the same time be borne in mind that new wealth can be gained only in so far as capital is available. National economy will never become less "capitalist" in the sense that more abundant supplies could be obtained with relatively smaller capital resources. All the talk — unfortunately heard even in scientific circles — that saving and the accumulation of capital have lost their importance thus deserves no more consideration than empty words or wild freaks of fancy. When we consider the immense amounts of capital which may be required in view of the possibilities of progress, reckless consumption of capital must be regarded as a menace to culture. Continuous saving and some prudence in the handling of savings are indispensable conditions for continued cultural advance. The condemnatory judgments passed by idealists on the formation of capital and the "accumulation of riches" are at variance with realities and therefore, in a deeper sense, far from ideal.

The world has been living for some years in the haze of a financial policy which pays scant regard to the limitation of real assets. The number of noughts in the expenditure figures is swelling year by year, and the budgets are beginning to resemble seas of soap-bubbles. But the life of the soap-bubble is short, and a time will come when the world will again be compelled to reckon with the real basis for the satisfaction of human needs. It will then be good to know that there are actually abundant possibilities for strengthening that basis. But it should at the same time be realized that these possibilities can be utilized only by an ordered economy which incessantly places new savings in the service of progress. The rational management of national finances will then be regarded and appreciated as a real benefit to culture.

PHASES IN PRODUCTION TRENDS

BY PROFESSOR I. HÖGBOM

Since 1914 the world production of raw materials has been subjected to violent disturbances owing to the world war and its political and economic consequences, thus as a result of external factors. Moreover, new principles and systems of production economy have emerged, so that production, which had previously been mainly self-adjusting, has to some extent become managed.

During this period of disturbance, however, tendencies which in peaceful times have led to a general increase of production, and to continuous readjustments between different branches of production, have also made themselves felt, though the effects of these tendencies are more difficult to gauge. There is in fact reason to regard the actual course of the world production of a particular commodity, e. g. iron or cotton, as the resultant of a normal production curve and a disturbance curve, the latter often negative; the disturbances can be analyzed only as deviations from a supposed normal trend. But what would have been the shape of the normal curves of production in the various circumstances?

The decades before 1914 were by no means free from crises, but the crises were then, at any rate in the main, internal phenomena of the economic system. They recurred at fairly regular intervals and, so far as they were reflected by changes in the volume of production, they were fairly similar to one another in magnitude. They were far less sweeping than the crises which were afterwards to follow on external disturbances.

During the pre-war period, we may say for about a half-century before the world war, people in fact reckoned with continuous progress, free from catastrophic disturbances, as something self-evident and normal, setting aside the effects of the recurrent crises. These good times already lie rather far back, but they are not merely of historical interest. One will have to revert to that epoch in order to secure material for observation, if one desires empirically to study normal trends or to verify the views about them which one may have arrived at in other ways.

Professor Cassel, in this quarterly, has frequently stressed the importance of grasping the idea of "uniform progress" as a basis from which to view the course of economic events, and has emphasized that uniform progress within the world economy at large was what particularly marked the economic trend during the latter part of the nineteenth century and the beginning of the twentieth century up to the world war. The term "uniform" in this connection does not imply that progress within different geographical areas or in different branches of production had been proceeding at the same rate, but that the sum-total of the utilities produced was increasing at a constant percentage, estimated by Cassel at 3 per cent per annum. In such calculations we must, of course, set aside temporary oscillations in the economic trend, the term "uniformity" being applicable to the average line of general progress.

If we consider different geographical areas or different branches of production, we shall see that this general uniform progress has in fact been marked by very dissimilar trends in the various components. It is, of course, in the nature of things, especially so long as substantially free competition is the determining factor, that an acceleration of progress in one quarter will be counterbalanced by a retardation in another quarter. The component curves into which the total production may be divided according to classes of goods will likewise assume a very shifting appearance, but they show characteristic features and phases.

The raw product basis of industry is now very different from what it was some decades ago,

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and the further we go back in time, the more marked do the changes appear. They may be said to have arisen in two different ways. Firstly, the production of certain long employed raw materials has developed more rapidly than the production of others; as examples one may take copper and iron: owing to the different speed of production, far more copper is now being produced relatively to iron than some decades ago. Secondly, entirely new raw products have emerged: enumerated in approximately chronological order, petroleum, wood pulp, aluminium and artificial silk may be mentioned as examples.

One may reach at some general conclusions by discussing in the abstract how the production of a particular commodity should develop under normal conditions.

The most neutral and general assumption one can proceed from is that the circumstances which entail an expansion of the production will affect it with the same intensity year by year in proportion to its magnitude. The production will then increase by a regular percentage similarly as capital increases at compound interest. This is the stable rate or uniform progression, which in the following represents the general case, the leading line in the reasoning. When it cannot be presumed that the conditions requisite for the increase of production are unchanged, the ensuing development of production will be considered as representing a specific case: some typical cases of this nature will likewise be discussed here.

An increase of production may be brought about either by the existing enterprises (producing units) extending their production or by the emergence of new enterprises, or by a combination of both these factors, which in reality is the most usual case. For the sake of simplicity, however, it may be assumed that all enterprises are units of equal magnitude and that the increase of production is brought about by the emergence of new units. Our reasoning would lead to the same conclusions even if the different size of the enterprises were taken into account and if one reckoned with a certain average increase in the production of each of them; but it would then be somewhat more complicated and would take up too much space. With the simplified assumptions just indicated, the origin of the uniform course of development may be represented as follows:

When a new enterprise has been founded within a branch, a certain average time elapses until sufficient capital has been collected, sufficient experienced gained, such a large market developed and so many plans deliberated, as to result in the foundation of a new enterprise as subsidiary or competitor (if so much competitive initiative has accumulated). In view of differences in technical and economic conditions, there is no reason to expect that this period would be of the same length in the production of different goods. On the contrary, it may be presumed that each commodity will have its characteristic pace of development, determined by the rule that the production is normally doubled during a period typical of that commodity.

In accordance with these assumptions, production, like the infusoria, will multiply by division. So long as the requisite conditions for increase remain unchanged, this signifies that production will proceed by geometrical progression, increase by a constant percentage, or show a uniform or a stable rate progress — which are different expressions for the same thing. Such a process is represented on an ordinary arithmetical chart by an upwardcurved line, on a logarithmic curve by a straight line, the angle of inclination of which indicates the percentage of increase (cf. Fig. 1 and 2). — A production which shows uniform increase may be said to be in a normal phase.

If in course of time the conditions for the increase of production change, the production will not follow any leading line of this kind. Such changes may be connected either with the specific requirements for the production of the commodity in question, or with trade cycle movements, or with external disturbances which affect all branches of production.

Also some of those deviations from the line of uniform increase which merely affect the production of a particular commodity are of such distinctive types that they can be analyzed from general points of view. Let us, for example, first consider the development of the production of a new commodity in the initial stage. For mathematical reasons there must be such a stage;

the geometrical progression cannot start at 0, and the production must therefore at first follow some other curve up to a certain level. Theoretically speaking, this case typifies the development history of all products. There must, of course, have been a time when the commodity was first made, when the production began. What interests us here, however, is how the production curve for a new industrial commodity works out at the present time; but the following reasoning is of wider application.

When the production is started, this means that it rises from 0 up to a certain quantity; expressed in percentage, this increase is infinite. This applies to the increase of the production *in statu nascendi*. Afterwards, mathematically speaking, the total production might continue by regular geometric progression, in the manner just indicated; but, in the nature of things, this will not be the case in reality. Instead, there will be a longer or shorter initial phase, the "foundation period", during which the relative increase of production drops from the infinitely high percentage of the first year to that percentage which later on — when the production has been established "in technical balance" with other branches of production — will represent normal progress. Thus the characteristic feature of the initial phase is that the rate of increase of the production is very high but falling. Furthermore, this phase is usually marked by great irregularity. In this case too, however, one can reason on similar lines as in regard to the mechanism of normal progress.

The relative increase in production after the starting of enterprise (unit) No. 1, 2, 3, 4... 11.... 101...., will be ∞, 100, 50, 33.... 10.... 1 %. Should these new units emerge at regular intervals, in which case the production, absolutely speaking, would increase in an arithmetical series, the *relative* increase in production would diminish in proportion to the time which has elapsed from the start of the first enterprise.

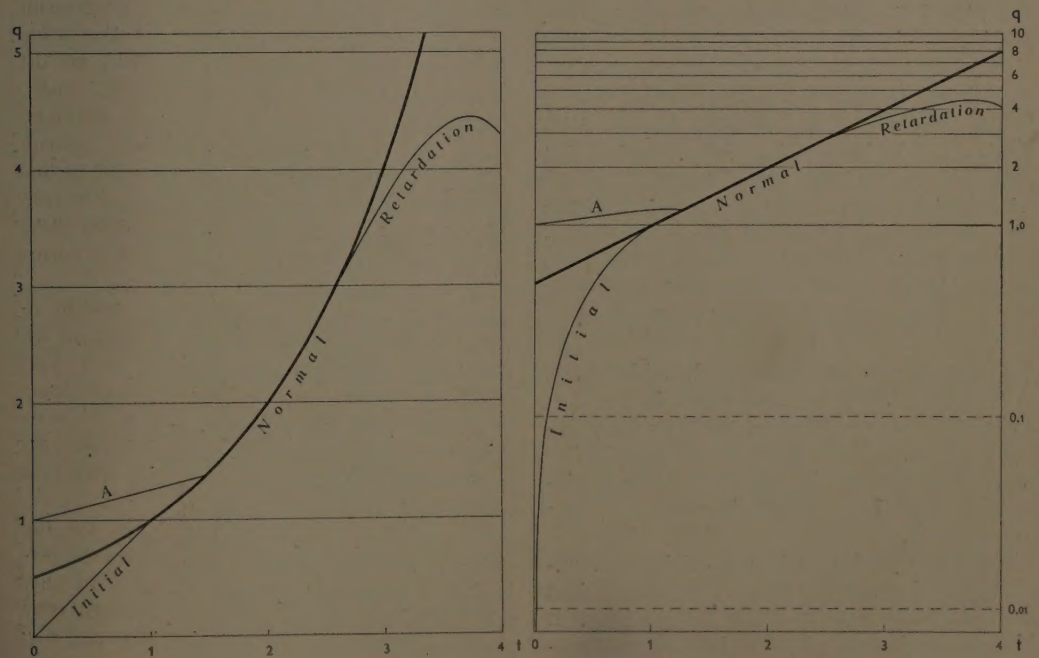

Fig. 1 and Fig. 2. Typical phases in the production trend of a commodity.
To the left, arithmetic scale; to the right, logarithmic scale.
A = earlier phase (production of older raw product before adjustment to normal phase).

This is the simplest assumption that can be made regarding a falling relative increase in production; for this reason the arithmetical progression in the charts in Fig. 1 and 2 represents the process during the initial phase. It is also quite reasonable to assume that the special incitement to a relative increase of production which is involved in the novelty of the product will diminish in proportion to the time which has elapsed from the first appearance of the commodity on the market. It might be possible to construct other better grounded sequences, but this would require a lengthy discussion. Here it should suffice to point out that there is, of course, no sharp transition from the initial phase to uniform progress. But, in view of the irregularity which is characteristic of the initial phase, it would here be of no interest mathematically to construct a series which passes from arithmetical to geometrical progression. — Arithmetical progression on an ordinary chart is represented by a straight line, whereas on a logarithmic chart it follows a curved line with a diminishing angle of inclination (cf. Fig. 2).

It should be added that not only the rapid but diminishing increase of production but also a falling price trend may indicate that the production is still in an initial stage. During that stage the price always drops heavily, but the price decline ceases when the production reaches the normal phase. These and other obvious connections between the price movements and the changes in the relative increase of production will not, however, be discussed in this article.

As regards some raw products the initial phase, as already indicated, lies so far back in time that it eludes analysis and has no bearing on present-day problems. Various raw products have in fact been taken over by industrialism from pre-industrial times. They include, for example, iron and even coal.

These raw products of early origin show another type of connecting phase to the normal lines of development than the newer raw products. In this case too, however, the previous trend of production may, for simplicity's sake, be represented by an arithmetical progression which has proceeded so long that the relative increase in production has fallen to a low percentage. The production curve will then connect from above with the more steeply rising line of uniform increase. It might indeed be stated that the more rapid modern development, normal progress, has united with the slowly increasing production of earlier days.

Uniform increase cannot proceed indefinitely. Sooner or later production must assume such proportion that the factors which determine the increase of production no longer operate with full force, and then the essential requirements for continued stable rate progress will cease to exist. In order to render such progress possible, several other important factors will have to increase at approximately the same rate as the production the course of which has been discussed. These factors include, on the one hand, labour, natural resources and capital, on the other, the actual and potential markets. The combination of factors which affect the increase of production might be grouped in other ways, but this classification seems suitable for the purpose of the views which will be set forth below.

As regards labour, it should be noted that a continuous increase of production will not necessarily require an increase in the number of workers or the number of hours of work per annum, as the efficiency may be enhanced to the required degree by technical improvements.

As for natural resources, technical progress may enable supplies which are less favourably situated or relatively poor in quality to be turned to as good account as more favourably situated and better supplies during an earlier period.

Finally, as regards capital, we are here mainly concerned with the margin which saving will provide for purposes of investment. This margin need not necessarily increase at the same pace as production: the investments corresponding to the amount saved will be rendered increasingly effective by more perfect technical processes. It is furthermore obvious that technical progress will tend to enlarge the market for industrial raw products.

In whatever way we may analyze the entire group of factors whereby a uniform increase of production is rendered possible, we shall find that

the value of the several components is affected by technical progress. However, technical advance is not merely an essential requirement, alongside of other requirements, for the development of production. In that case the increase of production would long before this have been brought to a check by some "narrow sector". Technical progress is a factor *behind* all the other factors, and if due regard is not paid to this fact, we shall be liable to misjudge the prospects of continued development.

Two of the essential conditions for an increase of production will now be particularly discussed, namely those which relate to the sufficiency of the natural resources and those which relate to the potential market. Is there reason to presume that the uniform development of the production of one or more of the fundamental raw products has been checked, or threatens to be checked, because the natural resources have begun to run short, or because the market is beginning to be glutted? The question thus formulated must be expressly understood to refer to the world production: it is obvious that within limited areas the natural resources have already been exhausted. The question at issue may be illustrated in concrete form by the two following examples. Is it probable that, because the best situated or richest oil-fields have first been exploited, an extension of the production by 8 per cent. annually would now encounter greater difficulties than ten or twenty years ago? Is it possible that the sale of iron on the world market under peaceful conditions could continue to increase by about 4 per cent. annually, as was the normal rate before the world wars? Is not the world market for iron beginning to feel some limit of saturation?

As already indicated, technical progress conduces both to increase the exploitable natural resources and to extend the market. There are, however, also other circumstances which entail the extension of the potential margins according as production and consumption increase.

It might be said that production and consumption are extended both geographically, or horizontally, and vertically. According as new areas on the globe are drawn into the actual zone of exploitation, other areas will lie next in succession; similarly the consumption of raw products will increase geographically according to the advance of industrialism, though in this case the front is shifted more slowly. The "vertical" increase of production and consumption, on the other hand, designates that increase which takes place within already industrialized areas: the term industrialism in this connection should be taken in a very general and wide sense.

There is reason to ask whether this geographical expansion as regards the production of raw materials has not now proceeded so far that new sources of supply are no longer available to enable the increase of production to continue; hitherto this increase has evidently been rendered possible only by the exploitation from time to time of new supplies.

It is chiefly the mineral resources that we have in mind in this connection. A careful investigation regarding the probable potential supplies of minerals in parts of the globe which have not yet been exploited leads us, however, to the conclusion that the geographical extension of the production of raw materials has hitherto not proceeded so far that the increase of production could no longer be maintained. Though the prospects naturally vary according to the different kinds of the deposits, it may be stated broadly speaking, that the known remaining supplies have never appeared so large as at present in relation to the production now proceeding. Indeed the estimates made from time to time of known remaining mineral supplies show that they have been increased by new discoveries more rapidly than the production. If we survey the world supplies, it appears that the more we have dug out of the earth, the larger the remaining resources. This applies also to the supplies of petroleum, the future life of which had previously been judged with most pessimism; on the other hand, it does not apply to the supplies of gold.

The above observations regarding mineral supplies are relevantly applicable also to other supplies of industrial raw products; the potential areas for the cultivation of e. g. cotton and rubber are very large relatively to those which have already been utilized.

Thus, generally speaking, we do not find in the sources of supply of raw materials any "nar-

row sector" which might prevent the further development of world production at the same pace as hitherto, at any rate during the next few decades or the next half-century.

As already indicated, the "vertical" increase in the production of raw materials — that is, within a particular area — has already ceased, or has been converted into a decrease of production within areas which had long been exploited; but this is nothing new. If we confine ourselves to quite limited areas, we shall find that this depletion of early exploited resources has proceeded in all ages. Relatively speaking, it is of no greater significance now than before, whence it cannot now conduce to check the relative increase of the total production to any greater extent than fifty years ago.

A study of the "vertical" increase of consumption in various areas will give us certain criteria for judging the prospects of the continued development of the world consumption.

In the United States the consumption of most raw products is twice as large, in some cases many times larger, *per capita,* than in the most industrialized countries in Europe. None the less consumption in the United States, setting aside temporary set-backs, has steadily increased, though not entirely by geometrical progression. Not even in that country will any limit of saturation apparently be reached within a proximate future. That the increase of consumption as well as of production should show a tendency to recede within the most developed areas concurrently with the emergence of new producers and consumers is the natural result of the free play of economic forces.

Only in one very important field has production been checked by the approach of the world consumption to a limit of saturation. I am referring to the production of foodstuffs and the limit of saturation taken in the strict sense of the term. Though these matters cannot be discussed here, it may be desirable to make an observation. It is only in regard to caloric value that one can speak of a limit of saturation. Within the range of that value marked changes occur in the consumption of foodstuffs: as prosperity increases, better-class products win a market from the cheaper and simpler foods. There is, for example, nothing to prevent the production of certain animal foodstuffs or tropical fruit from increasing at a uniform pace for a long time to come.

Let us suppose, however, that we look a little further ahead and ask what form the production curve will assume when the supplies of some raw product begin to run short or consumption is approaching the limit of saturation.

There is an obvious difference between these two cases. If the supplies of a raw product are beginning to get exhausted, the increase of production must sooner or later be converted into a decrease, which in the long run must bring production down towards the zero line. If consumption, on the other hand, is nearing the limit of saturation, the results will be quite different. Here a distinction must be made between consumption goods and capital goods. The production of an article of consumption would gradually reach and maintain a certain level. The production of capital goods, on the other hand, after reaching a maximum, would afterwards sink to the level corresponding to the sheer need of replacement or reconditioning after all new investments in real property had ceased. In the last-mentioned case the circulation and return percentage of scrap would determine the long-run level of production.

These hypothetical cases of the limitation of production owing to the depletion of supplies or the saturation of the market have, however, not yet occurred in regard to any of the big industrial raw products.

There are other factors which, under otherwise similar conditions, may entail, and have actually resulted in, the curtailment of the market for a particular commodity. The chief of these factors is competition from other goods. Here we are in fact confronted with a retarding factor the effects of which in several cases can be statistically shown in the hitherto recorded trends. The mathematical problem of competition, however, has many similar aspects, whether we view it from the standpoint of the individual producer, of a producing country or of a branch of production.

In various cases raw products compete with

one another on the world market. Of special importance is the competition between coal and oil. For certain purposes metals also may replace one another, for example copper and aluminium (for power lines, etc.). Such cases, however, are of greater interest in studying the price relations than in investigating the quantitative trend. As regards raw products other than minerals, the textile materials in particular largely replace one another for industrial purposes.

The trend of consumption may be discussed on parallel lines with our previous reasoning regarding production; as the most general case it may be assumed that the consumption will continue to increase by a certain constant percentage. Thus under normal conditions the consumption of electric power as also that of textiles would each show a uniform trend. Within the limits of the increasing consumption raw materials compete with one another, and the production of those materials in turn shows a tendency towards uniform increase. In the one case we are mainly concerned with coal and oil, in the other with several raw materials: here, however, the greatest interest attaches to the advance of the new artificial products (rayon etc.) on the market for the raw materials of earlier origin.

We find thus in these cases a total production which increases at a uniform pace and two component curves representing production, which likewise have a tendency to rise at a certain rate. One of them shows a steeper rise than the other owing to the greater incitement to an increase of production. This curve may therefore be supposed to be self-regulated, whether it is in an initial phase (artificial silk) or in a normal phase (petroleum). The other curve will then be dependent and will show a retardation which may eventually pass into a decrease of production.

In the foregoing the principal types of production trends during an undisturbed course of development, based on free adjustment, have been indicated as follows: After an *earlier phase* or an *initial phase* production is brought into a *normal phase* (stable rate growth), from which, owing to competition from some other raw product, it may be forced into a *retardation phase.* Other types of trend might be added, but with the aid of those mentioned one can satisfactorily characterize the various stages through which the production of the principal industrial raw materials has passed.

The reactions on the various production curves to the internal movements of the economic system, as manifested during the pre-war period, will be touched on here quite cursorily.

The production trends of certain raw products show practically no reaction to market fluctuations. These products include the more valuable metals: copper, aluminium, tin, lead and zinc (the two lastmentioned metals not included in the accompanying charts). The more marked transient deviations from normal shown by the production curves of those metals may be attributed to special causes. Thus in some cases large-scale production at new mines has resulted in temporary peaks on the production curves, and the demand for armaments during the Russo-Japanese war has entailed a marked increase in metal production. As regards these metals, however, the general economic situation during the pre-war period is not reflected in the curves for world production, but merely on the price curves, where the reactions were very conspicuous, owing to the high fixed charges and low floating costs which mark the production of those metals.

The production which shows the greatest reaction to the general economic situation is that of pig iron: iron is the central capital commodity. The production of coal, on the other hand, shows distinct, but minor fluctuations: a considerable part of the production goes to households, gas works, electricity works, etc., where the consumption is but little affected by the economic situation.

Some of the fluctuations in the production of petroleum in the eighties and nineties may possibly be correlated with general economic movements, but subsequently no such correspondence can be noted (until 1932). On the other hand, one can notice the effects of particular events in the history of petroleum production, including the destruction of oil wells at Baku during the Russian revolution of 1905.

Finally, among the commodities included in

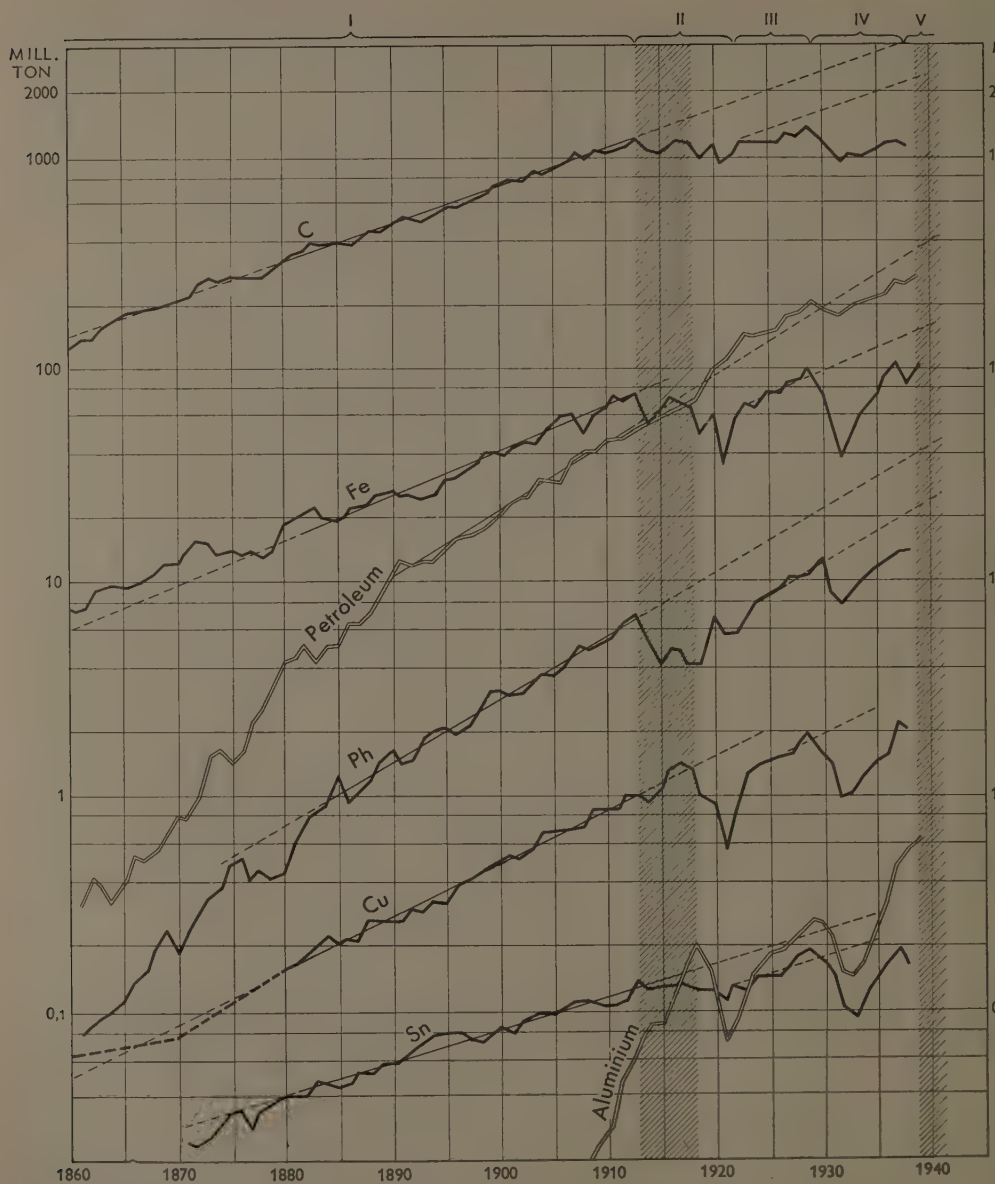

Fig. 3. World production of principal mineral raw products 1860—1939.

War years shaded. Logarithmic scale. C coal, Fe pig iron, Ph crude phosphates, Cu copper, Sn tin.

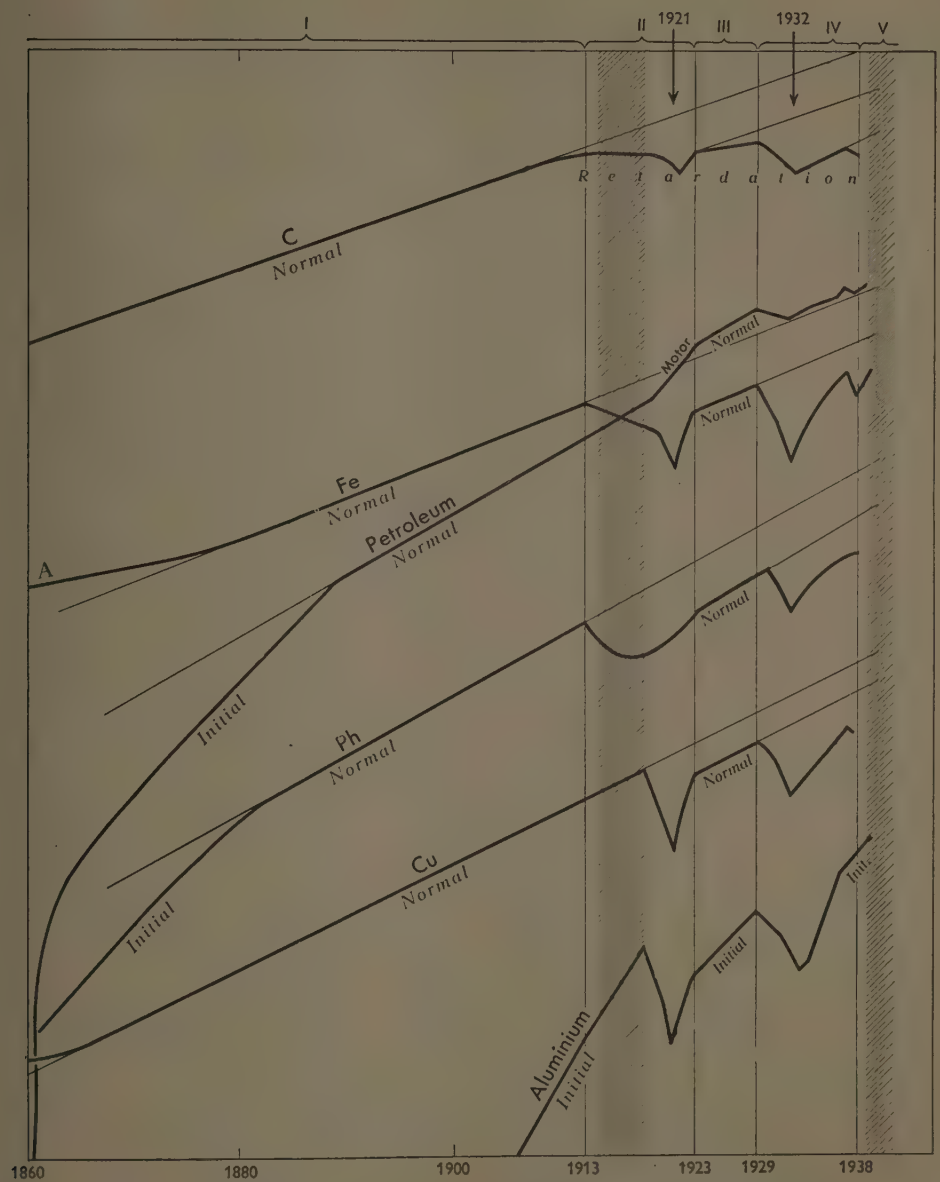

Fig. 4. Schematic representation of the preceding diagram showing phases in different production trends.

the charts raw phosphate shows very distinct fluctuations. Raw phosphate is the only one of those products which goes to agriculture and thus ultimately to the production of foodstuffs. This example shows that even in a field where the total production is determined by a physiological limit of saturation, individual branches of production may have free play for a development in accordance with the laws which determine the increase of production where no general limit of saturation can be shown.

In order to survey the reactions shown by the production of raw materials to the external disturbances during the period after 1914, it may be desirable to group this period in accordance with the following subdivision, which is marked in Roman figures at the top of the charts in Fig. 3 and 4.

1. *The pre-war period of general uniform progress* may be reckoned from the middle of the nineteenth century up to and inclusive of the year 1913.

2. *The world war and its aftermath up to the year 1922 inclusive.* This nine-year period approximately marks the retardation of normal progress which was entailed by the war. Thus it took about five post-war years to recover from the devastation and immediate consequences of the war.

3. *The stable rate development in the nineteentwenties.* This period may be estimated to comprise the years from 1923 to 1929. After the crisis in 1921 the pre-war production figures for the two leading raw products coal and iron were attained in 1923. That year moreover marked the beginning of a seven-year period of development when the production of most raw materials followed the trends of the pre-war period.

4. *The nineteen-thirties up to the outbreak of the war between the Powers.* This period comprises the most acute crisis which has ever been recorded by the production of raw materials. The bottom level was reached in 1932, and it was not till 1936 or 1937 that the production volume of 1929 was recovered; a moderate decline supervened in 1938. During the last few years of this period the production was greatly affected by the armaments of the Great Powers.

5. *The great war of 1939—.*

This subdivision is based on the quantity figures for the production of industrial raw materials as well as on the dates of the two outbreaks of war. It corresponds, however, fairly well with the subdivision one might have reason to make on a wider basis of economic figure series.

As regards most raw materials, however, the course of production from 1923 to 1929 has been more regular than a general analysis of the economic curve for the period in question might lead one to suppose. The good correspondence with the characteristic trends of the pre-war period which is in most cases shown by the course of production during this period is also striking. As from the year 1923 the disturbances connected with the transition from peace to war were evidently overcome, and the trends of production during the following years thus reveal none of those latent after-effects of the war which led to the unique crisis of the nineteen-thirties, the far-reaching nature of which as compared with the pre-war crises is clearly illustrated on the charts reproduced here. A comparison between the retardation of the production trend in consequence of this crisis and owing to the war is likewise significant: judged according to the production figures for coal and iron, the war entailed a retardation of about nine years in normal progress; the crisis at the beginning of the nineteen-thirties, on the same basis, entailed a retardation of about seven years.

Whilst the great war was proceeding, however, the changes in the raw product basis had continued, and when the effects of the war and its aftermath had been got over about 1923, and the various branches of production had again been brought into balance with one another on a peace basis, that balance was a different one than before the war. Those branches of production which before the war had shown a relatively slow increase of production had lost position, whilst those which had shown a relatively rapid increase of production had gained in position. The restoration of everything after a war would be an impos-

sibility, if only in view of those changes and revaluations which time itself entails.

The average annual increase of coal production before the war had been somewhat more than 4 per cent., that of petrol rather more than 8 per cent. This signified that the production of coal had been doubled and that of petrol quadrupled during the course of about 17 years. In the years immediately preceding the great war, however, we notice some slowing-down, though as yet insignificant, in the rate of increase of coal production. Oil production at that time (about 1910), measured in tons, was about 5 per cent. and, gauged in energy equivalents, nearly 10 per cent., of the production of coal. Oil production had thus attained such an order of magnitude that its continued rapid increase began to entail a marked retardation in the rate of increase of coal production. This general trend has in fact been already indicated in the foregoing. Its further development was disturbed by the war, but during the period from 1923 to 1929 the retardation in the development of coal production is clearly manifest.

Petroleum holds a unique position among raw products in that its production has apparently proceeded without being appreciably disturbed by the war. In reality, however, various factors have balanced one another, in that the development of motorism entailed such an expansion of the market for petroleum products during the war as well as in peace time that the general retarding effects of the war was counteracted.

The coincidence between the advance of motorism and the great war is very striking. In the course of the ten years before that war those technical processes which are based on the internal combustion engine had made an immense advance. The motor car had been developed on practical lines, the Diesel motor had been perfected, the first ocean-going motor vessels had been put into traffic, and the flying machine was passing beyond the experimental stage. All these and associated inventions were pressed into the service of the war: the development of motor technique was, if anything, proceeding at an accelerated pace. Petroleum became the leading consumption commodity of modern warfare. When peace supervened, civil industry fully adapted itself to the utilization of those technical improvements. Motorism thus advanced on all lines, and on a grand scale, during and immediately after the war. The market for petrol was thus immensely expanded, partly in the fields where coal had previously been employed, partly in completely new fields. The market thus grew so rapidly that even the critical year 1921 entailed no interruption in the increase of production. During this year, on the other hand, all other mineral raw products (thus also aluminium, see below) showed a severe setback in production. — On the chart in Fig. 4 the importance of motor technique for the development of oil production has been marked with the term "motor".

During the world-wide crisis at the beginning of the nineteenthirties oil production showed the first real decline in the course of a half-century. The decline, however, was insignificant compared with that sustained by other raw products, and the level of 1929 was recovered and even exceeded already in 1934. Moreover during this crisis oil gained more in relative position than would probably have been the case during an undisturbed development.

The internal combustion engine is the only technical novelty to which a marked increase in the production of one of the leading raw products, as compared with its precious trend, can be attributed. No other inventions, not even the ingot steel processes, have called forth as marked reactions in the production of any of these fundamental raw materials. This, of course, does not imply that inventions have had no effect on production; it simply means that they have supervened, so to speak, at the pace required to facilitate the uniform progress indicated by the several curves. In a few cases the uniform progress has actually been safeguarded at an obviously critical stage by inventions. For example, it may be stated that inventions in the field of selective flotation (ore separation) have been essential in order to enable the production of zinc and lead after the war to be linked up with previous trends. As regards those metals a shortage in the supplies of ore which were exploitable with previous processes of concentration had begun to make itself felt about the time of the outbreak of the great war. This is statistically shown by a comparison bet-

ween the trend of production and the price trend in those years; the production lay somewhat below the trend, whereas prices were comparatively high in proportion to those of other metals, and in relation to the general level of prices. There are, however, surprisingly few cases in which the effects of any inventions have clearly manifested themselves when the production had once reached the normal, uniform stage of development. On the other hand, it is naturally easy to point to those technical improvements which lie behind the emergence of the new raw products, and which have led to the marked expansion of production during the initial phase.

On a comparative study of the production trend, we shall find that it is *pig iron* and not steel that should be compared with the other metals. When we speak of the production of copper, we always refer, unless otherwise expressly stated, to the new production of copper from the ore; copper made from copper scrap is not included. It is pig iron, and not steel, that most closely corresponds to newly produced copper. Likewise, it is the pig iron curve and not the steel curve which shows the best connection with a uniform trend. The steel curve presents the picture of a slowing-down increase in production, and, if we take that curve as a basis, one is liable to arrive at the erraneous conclusion that the production of iron, in contradistinction from that of other metals, had long been in some kind of retardation phase. Iron slowly loses relative importance in the total raw-product basis, as compared with most other industrial raw products, owing to the relatively slow, but as yet maintained, rate of increase, but not owing to any hitherto noticeable decrease in that rate. Moreover, owing to circumstances connected with this slower rate of increase, and with the special factors which determine the return of iron and steel scrap, the recovery of pig-iron production after the crises was delayed; these circumstances, however, are of a non-recurring character and do not normally affect the trend. The problem connected with the different trends shown by the production of iron and steel is in fact of a complicated character; here it has only been possible to indicate the causes of this disparity. I have done so because in times of trade depression in this country far too pessimistic conclusions have been drawn in regard to the future of our iron ores, simply owing to the fact that the previous trend of steel production, and not of pig-iron production, had been extrapolated. The pig-iron curve reproduced in Fig. 3 gives a better idea of the regularity and the reactions which mark the production of the raw product iron than the corresponding steel curve would do.

Among the leading metals, copper holds the foremost position as a war metal. During the great war in fact the production of copper continued to increase at about the same rate as in peace time, whereas the production of the other metals, including iron, receded. Like the production of iron, but unlike that of petrol, the production of copper markedly fell after the war. There was no revolutionary technical advance which could stimulate the production of copper in the same way as petrol production had been affected by the development of motorism. Moreover, other circumstances contributed to the marked set-back in the production of copper in 1921; copper, like iron, is a capital commodity, whereas petrol is an article of consumption, besides which the market for the copper after the war was affected by the selling-off of the war stocks and by the appearance of demobilization scrap.

From the viewpoint of the observations previously made in this article regarding the phases of individual production trends, special interest attaches to the production of aluminium; during the decade before the great war it was evidently in an initial phase, and during the latter years of the war it was further accelerated by the increasing importance of aircraft for warfare. The stoppage of war industries led to a serious crisis for the production of aluminium. After the recovery about 1923, however, the production continued to develop at a pace which indicates that it is still in its initial phase.

If we follow the curve of aluminium production through wars and crises, we shall find that on each occasion its recovery has proceeded more rapidly than for the other metals. Thus after the crisis about 1932 the production of aluminium had in 1935 already attained the level of 1929, and in 1938 the production was twice as large as in that peak year. One can easily imagine how the curve of aluminium production would have

looked had it not been affected by those external disturbances. It would have shown a decreasing *relative* increase in production, which, however, would still have been much more marked than for the other leading metals: it would in fact have shown the typical picture of a production which will take some time to be brought into balance with other branches of production, that is, before it attains its uniform progression. There is in fact reason to presume that the production of aluminium will show an exceptionally rapid increase for some time ahead. Even when judged according to the value of the world production (1938), aluminium already holds the third place among the industrial metals. The order of rank is iron, copper, aluminium, tin, lead and zinc.

In the latter part of this article I have dealt with some of the reactions shown by the various production trends during and after the great war. I have confined myself merely to giving a few examples of how some of the leading raw products have behaved during one or other external disturbance. The examples have been selected solely from the production of minerals and metals, which offers the most reliable statistical material if one desires to institute comparisons with the undisturbed development during the decades preceding the first world war.

The leading examples of production trends which are in their initial phase in the present disturbed times must be sought for elsewhere. Among the products which have already acquired a big market, artificial silk and wool (staple fibres) are the only ones which have shown an unbroken increase in production even during the critical years at the beginning of the nineteen-thirties.[1] This is typical of the initial phase: the incitement to an increase of production is so strong that in many cases it prevails over periods of depression. It seems probable that during the proximate future the synthetic materials, above all others, will show in their production trends the characteristic features of the initial phase (artificial silk and wool, from a chemical point of view, are not synthetic products). In judging the future prospects of these products and of textile cellulose it may be of interest to see how the production trends have manifested themselves in earlier stages in regard to raw products which had been new.

Any deviation from the line of uniform progress evokes questions regarding the cause. To let the logarithmic charts determine the formulation of the issue has a distinct advantage: every question is brought into such relief as corresponds to its importance. It should be observed, however, that the purely quantitative point of view which has been adopted here in regard to the phases of normal development as well as to the effetcs of external disturbances can merely lead to conclusions of limited scope. The next step in the graphical-statistical analysis would presumably yield more fruitful results. That step would be to institute comparisons between the deviations in the production volume from the normal trend and the deviations of the respective commodity prices from the general price level. By such comparisons one could in most cases determine what factors had caused the deviation of the production from the trend. Such a case has in fact been indicated above in alluding to the importance of selective flotation for the utilization of the complex sulphide ores.

One may ask oneself whether under a different system than that which previously prevailed, with substantially free competition and free adjustment, any kind of normal production trends with typical phases would emerge. This question is not easy to answer, and it would need to be more precisely formulated. The material losses and possible gains entailed by war and revolutions can, however, scarcely be gauged otherwise than as non-recurring changes in the level of production or corresponding retardations in progress, and as possible durable changes in the continued development of production. It is therefore not merely of historical interest to ascertain how the production trends have manifested themselves under peaceful conditions and how they were disturbed by the former world war.

[1] In 1938 and 1939 the production of artificial silk was less than in 1937, but this decrease was compensated many times over by the increase in the production of staple fibres.

THE ECONOMIC SITUATION DURING THE THIRD QUARTER OF 1941

The General Situation. During the past quarter the difficulties in obtaining raw materials for industries have been further aggravated. Shipping traffic through the minefield in the Skagerrak has indeed to some extent been maintained, which has made it possible for some importation to take place, especially from South America. This trade, however, has been on far too small a scale to cover current requirements of imported goods, whence the stocks of several important raw products have diminished. During the summer and autumn grave misgivings have been expressed regarding the supplies of rubber and lubricating oils, and in a semi-official statement it has been pointed out that the shortage of motor tyres of large dimensions will probably necessitate a reduction of regular bus traffic in the spring of 1942. It is also conceivable that the shortage of rubber within the near future may entail serious difficulties in regard to the country's supply of fuel, as firewood is largely conveyed by motor to and from the railway stations.

The continuance of the transport of firewood without undue restriction is all the more urgent as the imports of coal and coke during the year have been on a considerably smaller scale than was provided for in the trade agreement with Germany. By the end of the summer German coal and coke had been imported merely to the extent of 2.6 million tons. The quantities of coal and coke supplied by Germany up to the beginning of September were about 300,000 tons less than during the corresponding period in 1940, and the total importation in 1941 will apparently not amount to two-thirds of the stipulated quantum of 6.6 million tons.

The decrease in the imports of fuel from Germany is considered to be due in some measure to the strain which has been put upon the German transport system in connection with the advance against Russia. It is also significant that the importation of German commercial iron — likewise a bulky commodity — has been on a considerably smaller scale than had been stipulated; the importation of commercial iron from Germany up to September amounted only to about 140,000 tons, whereas in the trade agreement the total imports of that commodity for the year 1941 had been fixed at 360,000 tons. As regards various less bulky goods, however, importation from Germany has been better maintained.

Partly owing to the reduced importation from Germany, the Swedish-German clearing has come to show a considerable net trade balance in favour of Sweden, whereas previously it had always shown a considerable net surplus in favour of Germany, which has been used in part for the settlement of Swedish financial claims on that country. A factor which has contributed to bring about this clearing position is that since the outbreak of the war Sweden's basis of exchange with Germany has become unfavourable, in that the German export prices have risen to a considerably higher level than the Swedish. The emergence of a clearing surplus in favour of Sweden was obviously tantamount to the grant of credit to Germany; it has moreover led to difficulties for certain Swedish export industries. Thus Sweden's sales of pulp and wood goods on the German market were stopped at a comparatively early date, because the German importers had exhausted their allocation of foreign exchange and had applied in vain for an increase. It was partly in order to prevent a deadlock in the Swedish export trade that the Reserve Stores Board in September 1941, after lengthy negotations between Sweden and Germany, granted — in the form of a clearing arrangement — an advance of 100 million kronor for German deliveries of coal, coke and chemical products to Sweden during the first half of 1942.

The shrinkage of foreign markets as well as the increasing difficulties in obtaining raw materials have entailed a decline of Swedish in-

dustrial production during the period under review. From June to August the production index of the Federation of Swedish Industries fell by 4 units to 100, as compared with 126 immediately before the extension of the blockade in April 1940. The decline in production has been particularly marked in the textile mills and the leather and boot industries. In order to economize textile materials the production of fabrics for curtains, furniture and bath wraps has been prohibited; and, despite some importation of South American hides, it has not been found possible to supply the boot industry to the same extent as before with its requirements of sole leather and tanning materials. Other circumstances which have apparently contributed to the decline in the above-mentioned industries are that the large State requirements for the equipment of the fighting forces have now been filled, whilst the retail purchases of the general public have diminished.

The reduced importation of coal and coke has necessitated certain restriction on the consumption of fuel. This has particularly affected the production of cement: the rationing of Portland cement, which was adopted in April, was extended on the 1st July to the so-called "E" cement, the production of which requires only about half as much fuel as Portland cement. The rationing of cement, as well as the shortage of certain iron goods, such as beams and plates, has greatly impeded the revival of building activity which the measures taken by the Government had been intended to promote. To judge by the number of building permits granted for dwelling houses in towns with a population of over 30,000, namely for 6,350 "hearths" (room or kitchen) during the second quarter of this year, as compared with merely 2,830 during the first quarter and 2,460 for the second quarter of 1940, it seems that some improvement in building activity is to be expected. It should, however, be observed that the building permits for the second quarter of 1939 comprised no less than 17,000 "hearths". As regards buildings other than dwelling houses, the permits for the second quarter of 1941 comprised 73,960 sq. metres, as compared with 36,420 sq. metres for the same quarter in 1940 (324,370 sq. metres in 1939). It should be noted, however, that the number of dwelling-house "hearths" in course of erection in the towns just referred to was only 10,815 on the 1st July, as against 13,850 at the same date last year and 59,740 in 1939.

In spite of the reduced industrial production and the still very limited activity in building, the situation on the labour market does not show any abnormal unemployment. The number of unemployed applicants for relief amounted at the end of August to 14,990 (10,360 in August 1940), after diminishing during the spring and summer more rapidly than has been usual during the last few years. The figures for unemployment in the trade unions likewise indicate that unemployment during the spring and summer has diminished more than is normal for the season. At the end of July 7.7 per cent. of the members of trade unions were unemployed, as compared with 9.0 per cent. a year previously and 4.8 per cent. at the end of July 1939. This more than normal reduction of unemployment since April is presumably due in the main to the large requirements of labour for timber-cutting in Juli and August, when in normal circumstances no timber is cut. According to the returns of the Labour Market Commission, those forest-owners who require outside labour for timber-cutting in addition to their own staff, on the 6th August employed 38,816 timber-cutters. This, however, did not suffice, and the authorities considered it urgent that 50,000 to 60,000 additional workers should be enlisted. So long as the importation of fuel is on such a small scale as at present, the requirements of labour for timber-cutting will continue to be very considerable, provided, of course, that the transport organization can cope with the conveyance of wood on an extensive scale to the areas of consumption.

Owing to the necessity of cutting down the consumption of coal and coke, the approach of the cold season is viewed with some anxiety. As far back as May the consumption of coal in industries had been reduced to about one-third of the average consumption in 1939, and in the summer the consumption was further curtailed. In certain cases the replacement of coal and coke by firewood has reduced the capacity of industrial plants, for example in the iron industry; during the first half-year, however, it has been found possible to maintain the production of iron and

steel ingots at a higher level than in 1939, though there has been some decrease as compared with the year 1940. The conveyance of firewood to the larger places of consumption has, unfortunately, not been carried out on a sufficient scale before the beginning of the new fuel season. In places where the trade in fuel is regulated (including Stockholm, Gothenburg, Malmö, Norrköping and Hälsingborg), and where half the amount of fuel used for heating houses is to consist of firewood, the stocks of firewood for household purposes in the middle of September amounted to little more than one-fourth of the consumption planned for the season.

The strain to which the railways have been put by the transport of firewoods is indicated by the fact that the number of axle kilometres for loaded trucks on the State Railways amounted in July to 3,344,000 per weekday (after making a reduction for the privately owned railways incorporated in the State railway system in July 1940), as compared with 2,314,000 in July 1940 and 1,887,000 in July 1939. The competition for carrying facilities on the railways has at times been so keen, that even very important transports have had to be deferred. For example, the export of timber products to the Danish market appears to have been retarded by the shortage of rolling stock on the Swedish railways.

On the other hand, shipping to and from Swedish ports has latterly been much less brisk than during the last few years before the outbreak of the war. The total tonnage entered and cleared (with cargoes) in direct shipments to foreign ports amounted in July 1941 merely to 1,629,000 net tons, as against 1,957,000 net tons for the same month last year and no less than 4,327,000 net tons in 1939. A noteworthy change has taken place, in that shipping is now being carried on by Swedish vessels to a considerably greater extent than before. The share of Swedish vessels in the total tonnage entered and cleared in direct shipments to foreign countries increased from 25.6 per cent. in July 1940 to 41.9 per cent. in July 1941, whilst the proportion represented by German vessels was reduced from 64.2 to 19.3 per cent.

The very marked decrease in imports during the year is shown by the table below. The import value fell from 1,409 million kronor during the first eight months of 1940 to 1,046 million kronor during the same period in 1941, although, according to the wholesale price index of the Swedish Board of Trade, import prices had increased on an average by about 33 per cent.

	Imports	Exports	Import surplus
	Million kronor		
Jan.—Sept. 1935	1,035	918	117
» » 1936	1,156	1,065	91
» » 1937	1,542	1,415	127
» » 1938	1,481	1,339	142
» » 1939	1,738	1,384	354
» » 1940	1,556	990	566
» » 1941	1,206	981	225

The harvest prospects have not improved during the past quarter. The winter weather which was ill-suited for vegetation and the unduly dry early summer were followed by rain in the late summer: this, however, did not remedy the situation, but, on the contrary, led in some quarters to greater damage to cereals. In the harvest returns for the 31st August the year's harvest of wheat and rye was estimated at merely 621,000 tons, as compared with 689,000 tons last year. The total harvest of wheat and rye will presumably be not more than about half as large as the average for the years 1938 and 1939. Still worse results were anticipated as regards the hay crop, which was estimated at 2,386,000 tons, as against 3,388,000 tons last year, 5,122,000 tons in 1939 and 5,882,000 tons in 1938. For potatoes and sugar beets, on the other hand, it was estimated that the harvest would be somewhat above medium.

In view of the unfavourable results of the harvest, it is evident that the provision of foodstuffs for the population of Sweden cannot be maintained on the same scale as hitherto, if the war is protracted. At the time of the harvest the Swedish stocks of cereals did not amount to more than 125,000 tons; the stocks of concentrated cattle food and fertilizers have likewise been considerably reduced during the past year, and the Food Commission has estimated that the major part of the reserve stocks of concentrated cattle food and raw materials for magarine will be consumed during the winter. Largely owing to the stocks of feeding stuffs which the farmers had accumulated, the decrease in milk production, despite the very poor harvest of 1940, in July 1941 was only 8 per cent. as compared with July

Share Index.	1936 Jan.	1937 Jan.	1938 Jan.	1939 Jan.	1939 July	1940 Jan.	1940 April	1940 July	1940 Oct.	1941 Jan.	1941 April	1941 May	1941 June	1941 July	1941 Aug.	1941 Sept.	1941 30. Sept.
Home industries	138	157	158	175	187	145	134	144	139	148	133	140	141	147	150	159	161
Other industries	134	186	172	171	169	130	128	137	129	155	146	153	155	157	160	175	173
Of which																	
Grängesberg Company	78	177	219	191	178	131	110	134	137	155	157	150	153	164	165	196	189
Exporting engineering industries	167	223	196	195	188	133	133	147	139	161	157	166	166	170	173	189	186
Other, including iron and steel ind.	148	196	173	181	182	138	130	138	130	170	159	166	165	156	159	178	176
Wood-goods and pulp-ind.	108	146	131	124	127	104	104	110	100	119	106	113	117	122	123	132	130
Combined wood and iron ind.	143	186	176	200	209	184	196	195	180	211	193	212	216	223	228	242	240
Banks	168	189	191	192	183	143	127	147	139	156	141	142	145	147	152	161	163

Note. Where not otherwise stated, the figures are for the middle of the month.

1940 and 16 per cent. as compared with July 1939. The farmers' own stocks of feeding stuffs appear, however, to have been substantially exhausted, and, as the year's hay crop was considerably smaller than last year's, it seems that the production of milk during the winter will be appreciably reduced. Cellulose for use as fodder will indeed be available to a greater extent than before — in the early summer contracts were concluded with the pulp industry for the supply of 200,000 to 225,000 tons of cellulose for that purpose, besides which there is a reserve of 50,000 tons from the preceding season — but the compensation obtainable in this way is unsufficient, even if it is eked out by the collection of leaves and rushes for cattle food. The magnitude of next year's harvest may be affected by the reduction in the supply of fertilizers for the autumn sowing. The supply of phosphates (superphosphates and Thomas phosphates) has been fixed at 20 per cent., of potash at 15 per cent., of the amount consumed in 1940—1941, whilst the allocation of lime nitrogen has been fixed at the same amount as was consumed in the autumn of 1940.

Recently published figures make it evident that some importation of raw products for agriculture, though on a greatly reduced scale, can still be maintained. Thus in May and June this year over 26,000 tons of raw phosphates were imported, during the first seven months of the year 49,000 tons of oil cakes, and during the first eight months 24,000 tons of bran. In 1940 no less than 142,000 tons of oil cakes, 49,000 tons of maize, 40,000 tons of raw phosphates and 19,000 tons of Chile nitrate were imported into Sweden. The importation of calcium nitrate and potash salts has proceeded almost on a normal scale since the outbreak of the war.

The extremely poor harvest of this year has led to demands from the farmers for compensation in the form of higher prices for the reduced quantity. It should be noted that the index of the Swedish Board of Trade for the wholesale prices of agricultural produce rose from August 1940 to August 1941 from 141 to 175 (1935 = 100): it is largely owing to this rise, in conjunction with the very marked price advance for imported goods, that the wholesale price index for all kinds of goods during the third quarter rose from 146 to 174. From the third quarter of 1940 to the third quarter of this year the Board of Social Welfare's cost-of-living index for foodstuffs and stimulants has risen by 13 per cent., which has greatly affected the total cost-of-living figures. Should the upward trend of agricultural prices continue, this may be expected to have a marked repercussion not only on the cost of living, but also on wage costs in industry and perhaps on the possibility of maintaining peace in the labour world, as the collective tariff agreements for some 700,000 workers expire about the end of the year.

The easiness on the credit market and the flow into the banks of money at short notice has become increasingly marked. During the third quarter the deposits in the commercial banks averaged 4,541 million kronor, as compared with 4,182 and 4,434 million kronor, respectively, during the same period in 1940 and 1939. The

bank returns this year thus showed for this quarter a surplus of deposits of 294 million kronor, as against an excess of advances of 357 and 137 million kronor, respectively, for the same period in 1940 and 1939. The liquid funds of the banks have been invested on an increasing scale in treasury bills at a discount rate which has fallen from 1.5 % in the middle of July to 1.35 % latterly. Also other credit-granting institutions show a more abundant supply of money, which is partly due to the improved liquidity in the agricultural districts.

The Bond and Stock Markets. The following table gives approximate figures for the yield (in percentage) corresponding to the market rates of representative bond loans during the last few months. The rise of bond prices, which has proceeded rather steadily, has entailed during the past quarter a reduction of the market rate of interest by one or two tenths per cent. Bond prices at the end of the quarter thus corresponded to a yield of about 3¼ % for short-term 3 per cent. Government and mortgage-bank loans, about 3½ % for the loans of the larger municipalities, and for industrial loans 4⅙ down to 3¾ %, making allowance for the reduced yield which might result from conversion.

Yield of Bonds (in %).

Swedish Government.	Number of loans	1941 14/3	15/4	16/5	13/6	15/7	15/8	16/9	30/9
3 % 1934–. Conv. 1944	1	3.60	3.60	3.48	3.44	3.42	3.26	3.23	3.23
3 % 1937–97. Conv. 1947	1	3.59	3.58	3.44	3.40	3.43	3.27	3.27	3.25
Mortgage Banks.									
3 % Conv. 1944—47 . .	4	3.56	3.56	3.45	3.39	3.41	3.30	3.26	3.26
Repayment 1999–2009, at latest.									
Municipalities.									
3, 3¼ and 4 % Conv. 1943—46	3	3.96	3.95	3.79	3.65	3.65	3.50	3.48	3.47
Repayment 1956–1966, at latest.									
Industrial Companies.									
3¼ 1937–57. Conv. 1947	3	4.70	4.66	4.51	4.36	4.31	4.31	4.16	4.16
3½ % 1937–62. » 1947	1	4.55	4.44	4.38	4.32	4.32	4.20	3.86	3.75
4 % 1935–55. » 1945	1	4.64	4.52	4.52	4.19	4.04	4.04	3.89	3.89

During the past quarter the fall of interest has entailed conversion operations on a large scale: the offers of conversion extended to about 273¼ million kronor in Government loans and over 100 million kronor in other bond loans. The principal loan operations are given in the table below.

In addition, Sydsvenska Kraft AB., against a bonus of ½ %, have offered the conversion at 3½ % interest of two previous 4½ % loans, the remaining amount of which totals approximately 5.25 million kronor. Furthermore, the Grängesberg Company's 4 per cent. loan of 1922 (of which approximately 3.9 million kronor was outstanding on the 1st January 1941) and Bergslagernas Järnvägs AB's 4½ % loan of 1908 (of which about 4.14 million kronor remained on the 1st January 1941) have been called in for redemption on the 1st April and 31st March, 1942, respectively, without any offer of conversion.

The new Government loans, which were offered for subscription on the 22nd September, have been very successful. When the subscription lists closed on October 11th about 640 million kronor had been subscribed.

As will be seen from the tables, share prices even during the last few months have shown a moderate rising tendency. Generally speaking, at the end of the quarter they were approximately on the same average level as in July 1939, thus before the outbreak of the war. A relative high value appears to have been assigned to those shares which represent large real assets, thus especially to shares in the big iron and timber companies.

Issued by	Interest rate in %	Nom. amount in kronor	Issue price in %	Previous loan, concurrently offered for conversion. Kronor
Swedish Government (for 40 years)	3 ½	Amount not fixed	100	273,266,100
» » (for 5 years)	3		100	
Swedish Cities' Mortgage Bank	3 ½	100,000,000	100	ca. 62,000,000
Mortgage Bank of Stockholm	3 ½	20,000,000	100	9,592,000
Mortgage Bank of Gothenburg	3 ½	Amount not fixed	100	3,812,000
AB. Atlas Diesel	3 ½	3,700,000	97	3,161,000
Billeruds AB.	3 ½	20,000,000	98	15,247,000
Ljusne-Woxna AB.	3 ½	8,000,000	98	5,454,000

Some Statistical Data Concerning Sweden's Economic Position.

Currency Reserve, Stock of Gold, Note Circulation.

	Net Claims of Banks on Foreign Countries million kronor (End of month)									The Riksbank's								
										Stock of Gold[1] (million kr.)			Stock of Gold and Net Claims on Foreign Countries[1] (million kr.)			Note Circulation (million kr.)		
	Riksbank			Commercial banks			Total											
	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941
Jan.	695	406	769	−15	+ 72	− 87	680	478	682	1363	1084	694	2058	1490	1464	953	1330	1369
Feb.	675	485	747	−19	+ 80	− 75	656	565	672	1364	916	716	2039	1401	1463	943	1298	1362
March	660	505	753	−21	+ 87	− 96	639	592	657	1367	727	724	2027	1232	1477	973	1303	1355
I (Average)	**677**	**465**	**756**	**−18**	**+ 80**	**− 86**	**658**	**545**	**670**	**1365**	**909**	**711**	**2041**	**1374**	**1468**	**956**	**1310**	**1362**
April	618	454	780	−39	+102	−106	579	556	674	1397	752	731	2015	1206	1510	994	1427	1356
May	593	433	818	−50	+ 99	−135	543	532	683	1419	793	755	2012	1225	1573	965	1433	1328
June	583	437	803	−21	+ 94	−147	562	531	656	1425	834	807	2008	1271	1610	997	1431	1375
II (Average)	**598**	**441**	**800**	**−37**	**+ 98**	**−129**	**561**	**539**	**671**	**1414**	**793**	**764**	**2012**	**1234**	**1564**	**985**	**1430**	**1353**
July	563	578	858	−17	+ 86	−145	546	664	713	1434	725	795	1997	1304	1653	987	1394	1379
Aug.	549	685	861	−12	+ 71	−130	537	756	731	1488	644	804	2037	1329	1665	1017	1399	1421
Sept.	476	753	867	−42	+ 48	−125	434	801	742	1499	638	801	1974	1391	1668	1189	1411	1465
III (Average)	**529**	**672**	**862**	**−24**	**+ 68**	**−133**	**506**	**740**	**729**	**1474**	**669**	**800**	**2003**	**1341**	**1662**	**1064**	**1401**	**1422**
Oct.	421	774		− 3	+ 12		418	786		1396	631		1817	1405		1192	1391	
Nov.	386	801		+11	− 34		397	767		1398	658		1784	1459		1190	1362	
Dec.	301	750		+47	− 64		348	686		1293	672		1594	1422		1356	1428	
IV (Average)	**369**	**775**		**+18**	**− 29**		**387**	**746**		**1362**	**654**		**1712**	**1429**		**1246**	**1394**	
Notes	The figures comprise balances with foreign customers and holdings of foreign bills and foreign bonds less amounts due to foreign customers.									At end of month.						Monthly averages		

[1] The Riksbank holding of gold is given at its market value, other items at their book values.

Commercial Banks, Stock Exchange.

	Commercial banks									Share Index						Shares sold on the Stockholm Stock Exchange (1000 kr.)		
	Deposits (million kr.)			Advances incl. bills rediscounted (million kr.)			Surplus of Advances (million kr.)			Home Industries			Other Industries					
	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941
Jan.	4145	4334	4294	4223	4831	4337	+ 78	+497	+ 43	175	145	148	171	130	155	1034	257	453
Feb.	4169	4231	4247	4265	4897	4309	+ 96	+666	+122	175	136	143	170	130	148	873	213	293
March	4260	4245	4278	4327	4884	4346	+ 67	+639	+ 68	180	149	136	176	153	143	997	684	270
I (Average)	**4191**	**4270**	**4273**	**4272**	**4871**	**4351**	**+ 81**	**+601**	**+ 78**	**177**	**143**	**142**	**172**	**138**	**149**	**968**	**385**	**339**
April	4217	4120	4249	4375	4865	4353	+158	+744	+104	177	134	133	165	128	146	814	370	312
May	4190	4007	4211	4414	4798	4362	+224	+791	+151	182	134	140	170	132	153	782	255	260
June	4242	3999	4259	4450	4702	4324	+208	+703	+ 65	188	135	141	174	131	155	1509	220	397
II (Average)	**4216**	**4042**	**4240**	**4413**	**4788**	**4346**	**+197**	**+746**	**+106**	**182**	**134**	**137**	**170**	**130**	**151**	**1035**	**282**	**323**
July	4367	4132	4451	4437	4612	4262	+ 70	+480	−189	187	144	147	169	137	157	376	157	376
Aug.	4447	4190	4528	4535	4548	4243	+ 88	+358	−285	186	134	150	170	125	160	732	111	461
Sept.	4488	4223	4645	4742	4456	4236	+254	+233	−409	187	136	159	167	128	168	994	166	917
III (Average)	**4434**	**4182**	**4541**	**4571**	**4539**	**4247**	**+137**	**+357**	**−294**	**187**	**138**	**152**	**169**	**130**	**162**	**701**	**145**	**585**
Oct.	4444	4239		4791	4415		+347	+176		160	139	168	140	129	179	581	243	
Nov.	4296	4097		4850	4406		+554	+314		160	143		143	147		286	634	
Dec.	4232	4192		4873	4388		+641	+196		154	149		137	147		76	474	
IV (Average)	**4324**	**4174**		**4838**	**4403**		**+514**	**+229**		**158**	**144**		**140**	**143**		**314**	**450**	
Notes	Deposits from and loans to the public within the country (at the end of the respective month)									The figures denote mid-monthly average prices.						Averages per Stock Exchange business day		

Rates of Interest and Price Level.

	Yield of Bonds (%)						Wholesale Price Index (Board of Trade) (1935 = 100)									Cost of Living Index (July 1914 = 100)		
	Govt. Loans			Industrial Loans			Import Goods			Export Goods			All Goods					
	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941
Jan.	2.39	4.07	3.65	2.79	5.92	4.75	108	166	218	111	140	155	110	136	162	167	178	204
Feb.	2.34	4.04	3.64	2.78	6.04	4.70	108	168	224	111	147	155	109	138	165	·	·	·
March	2.22	4.10	3.60	2.78	5.98	4.70	108	174	225	112	152	155	109	140	169	·	·	·
I (Average)	**2.32**	**4.07**	**3.63**	**2.78**	**5.98**	**4.72**	**108**	**169**	**222**	**111**	**146**	**155**	**109**	**138**	**165**			
April	2.55	4.53	3.60	2.77	7.27	4.66	108	172	229	111	154	157	109	141	170	168	186	219
May	2.53	4.41	3.48	2.77	7.27	4.51	109	170	233	110	153	157	109	142	171	·	·	·
June	2.57	4.12	3.44	2.77	6.33	4.36	110	175	239	113	144	158	109	143	173	·	·	·
II (Average)	**2.55**	**4.35**	**3.51**	**2.77**	**6.96**	**4.51**	**109**	**172**	**234**	**111**	**150**	**157**	**109**	**142**	**171**			
July	2.92	3.99	3.42	2.78	5.53	4.31	109	179	237	114	143	158	110	146	173	169	193	219
Aug.	2.76	3.81	3.26	2.93	5.31	4.31	110	182	239	114	144	159	111	146	174	·	·	·
Sept.	3.44	3.69	3.25	4.21	5.00	4.16	139	179	243	118	145	160	118	148	175	·	·	·
III (Average)	**3.04**	**3.83**	**3.31**	**3.31**	**5.28**	**4.26**	**119**	**180**	**240**	**115**	**144**	**159**	**113**	**147**	**174**			
Oct.	3.52	3.63	3.24	4.49	4.85	3.71	150	199		127	150		124	154		171	197	221
Nov.	3.69	3.67		4.72	4.80		153	208		130	151		128	157		·	·	
Dec.	4.10	3.69		5.31	4.80		161	211		135	151		132	159		·	·	
IV (Average)	**3.77**	**3.66**		**4.84**	**4.82**		**155**	**209**		**131**	**151**		**128**	**157**				
Notes	Calculated on market prices at middle of months															Refers to end of quarters		

Trade and Industry.

	Total Imports (million kr.)			Total Exports (million kr.)			Index of Production according to Feder. of Swed. Industries (1935 = 100)			Supply of Industrial Work Index numbers			Waggon-axle Kilometres of loaded Trucks on State Railways			Unemployment in Trade Unions (%)		
	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941	1939	1940	1941
Jan.	174	258	126	149	169	85	118	128	106	·	3.66	3.21	40.1	66.6	65.8	14.7	14.1	17.2
Feb.	163	167	78	125	115	47	120	127	106	·	3.67	3.21	42.1	74.7	73.1	13.0	14.5	16.5
March	191	150	107	139	140	87	122	126	105	·	3.60	3.24	48.9	76.9	86.7	11.6	15.8	15.1
I (Average)	**176**	**192**	**104**	**138**	**141**	**73**	**120**	**127**	**106**	**3.66**	**3.64**	**3.22**	**43.7**	**72.7**	**75.2**	**13.1**	**14.8**	**16.3**
April	201	238	177	152	104	112	123	118	105	·	3.53	3.31	46.1	82.2	79.5	9.0	11.1	13.1
May	208	197	177	166	80	133	123	107	104	·	3.44	3.39	47.8	63.0	83.8	6.3	9.5	10.6
June	202	136	127	178	86	136	125	107	104	·	3.42	3.40	48.5	53.6	72.3	5.6	8.7	9.4
II (Average)	**204**	**190**	**160**	**165**	**90**	**127**	**124**	**111**	**104**	**3.92**	**3.46**	**3.37**	**47.5**	**66.3**	**78.5**	**7.0**	**9.8**	**11.0**
July	204	140	118	160	92	115	125	106	100	·	3.40	3.39	49.1	65.8	91.6	4.8	9.0	7.7
Aug.	217	123	136	185	97	130	126	106	100	·	3.38	3.38	52.6	62.3		4.9	9.1	
Sept.	179	148	160	131	106	138	124	105		·	3.36		61.1	74.7		6.3	9.8	
III (Average)	**200**	**137**	**138**	**159**	**98**	**128**	**125**	**106**		**3.96**	**3.38**		**54.3**	**67.6**		**5.3**	**9.3**	
Oct.	219	139		160	103		126	106		3.78	3.35		62.4	77.6		8.0	11.0	
Nov.	274	155		180	124		127	107		3.78	3.35		61.4	70.8		10.4	12.6	
Dec.	258	149		155	121		128	107		3.77	3.35		66.3	69.1		15.2	16.1	
IV (Average)	**250**	**148**		**165**	**116**		**127**	**107**		**3.78**	**3.35**		63.4	**72.5**		**11.2**	**13.2**	
Notes							Seasonal change removed			The figure 3 denotes normal supply of work			Million kilom. per month			% of total members at end of month		

Stockholm 1941. Kungl. Boktr. P. A. Norstedt & Söner 413015

SKANDINAVISKA BANKEN

STOCKHOLM 16.

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Member of the Stockholm Stock Exchange — Mitglied der Stockholmer Effektenbörse

Oct. 1941
Okt. 1941

Quotations of Swedish Shares. — *Kursnotierungen für schwedische Aktien.*

	Share Capital *Aktien-kapital*	Nom. Value *Nenn-wert*	Dividends *Dividende*[1]			Prices (bid) *Notierungen (Geld)* 1941					
SON (Telephone Service) . . . . { » B[5]	16.2	180	—	—	—	[2]42	43	45.50	52	61	(*Fernsprecherdienst*) . . . . . { » B[5]
Mo och DOMSJÖ A.-B. (Pulp and Timber) . { Series A	32	100	8	8	8	134	160	160	158	177	Mo och DOMSJÖ A.-B. (*Holzmasse und Holz*) { *Ser. A*
		100	8	8	8	134	—	160	155	178	» *B*[5]
MUNKSJÖ A.-B. (Paper, Pulp and Timber) { Series A	10	100	—	4	—	45	44	49	55	60	MUNKSJÖ A.-B. (*Papier, Holzmasse und Holz*) { *Ser. A*
» B	3.99	100	—	4	—	41	43.50	47.50	52	58.50	» *B*
» B, free[5] . . .	1	100	—	4	—	41	43.50	47	52	60	» *B, freie*[5]
OXELÖSUNDS JÄRNVERKS A.-B. (Iron, Coke, Window-Glass etc.), free[5] . . .	6.17	100	10	10	10	130	—	150	162	171	OXELÖSUNDS JÄRNVERKS A.-B. (*Eisen, Koks, Fensterglas usw.*), *freie*[5]
		100	10	10	10	130	—	150	162	171	
SANDVIKENS JERNVERKS A. B. (Iron)	25	100	[3]3+5	[3]3+5	[3]3+5	170	177	180	200	211	SANDVIKENS JERNVERKS A.-B. (*Eisen*)
SKÅNSKA CEMENT A.-B. (Cement)	21	1 000	70	70	70	1300	[4]1475	1450	1500	1575	SKÅNSKA CEMENT A.-B. (*Zement*)
STOCKHOLMS SUPERFOSFAT FABRIKS A.-B. (Chemical Products)	12	150	12	12	12	253	270	285	300	312	STOCKHOLMS SUPERFOSFATS FABRIKS A.-B. (*Chemische Erzeugnisse*)
STORA KOPPARBERGS BERGSLAGS A.-B. (Paper, Pulp, Timber and Iron)	60	100	10	10	10	290	290	300	303	318	STORA KOPPARBERGS BERGSLAGS A.-B (*Eisen, Papier, Holzmasse und Holz*)

[1] Refer to dividends paid for the preceding financial year. — *Bezieht sich auf Dividenden, die für das vorgehende Geschäftsjahr bezahlt worden sind.* — [2] Ex dividend. — *Abzügl. Dividende.* — [3] Interim dividend paid in the preceding year. — *Im Vorjahr ausgeschüttete Vorschussdividende.* — [4] Selling price. — *Briefkurs.* — [5] Acquirable by aliens. — *Von Ausländern erwerblich.* — [6] Not acquirable by aliens. — *Nicht von Ausländern erwerblich.* — [7] Not quoted on the Stock Exchange. — *An der Börse nicht eingeführt.*

Quotations of Swedish Bonds (Contd.). —

Kursnotierungen für schwedische Obligationen (Fortsetzung).

In percentage; ex interest. — *In %, exclusive Zinsen.*

Not quoted on the Stock Exchange.	Terms of Redemption *Tilgungsmodalitäten* D = Drawings *Auslosung* P = Purchase *Rückkauf* R = Perpetual Loan *Staatsrente*	Redeemable in Whole *Konvertibel*	Interest Dates *Zinstermine* *	Approximate Prices (bid) *Approx. Notierungen (Geld)* 1941 1/7	29/7	29/8	30/9	27/10	*An der Börse nicht eingeführt.*
A. B. Bofors (War Material) 3¼ % 1937	1941—1957 D	15/5 1947	15/5—15/11	93	93	93½	94	96	A. B. Bofors (*Kriegsmaterial*) . . . . . 3¼ % 1937
Rederi A.-B. Svenska Lloyd (Shipping) . . . 6½ % 1920 conv.	1928—1942 D		15/3—15/9	100	101	101	101	102	Rederi A.-B. Svenska Lloyd (*Reederei*) . . . 6½ % 1920 *konv.*
Telefon A.-B. L. M. Ericsson (Telephones), Registered certificates . . . . . 5½ » 1931	1941—1951 D	1936	15/6—15/12	100	100	100	101	101	Telefon A.-B. L. M. Ericsson (*Fernsprecher*), *Schuldverschreibungen* . . . 5½ » 1931
International Match Realization Company, Voting Trust Certificates				—	$ 6	$ 8½	$ 9	$10	International Match Realization Company, *Voting Trust Zertifikate* . . . .
A.-B. Kreuger & Toll, Bearer Certificates of Deposit 5 » 1929				2[1]	2	2	2	2	A.-B. Kreuger & Toll, *Inhaber-zertifikate* . . . 5 » 1929

[1] Ex dividend. — *Abzügl. Dividende.*

* **Amortization-dates underlined.** — ***Tilgungstermine unterstrichen.***

Quotations of Foreign Bonds. — *Kursnotierungen für ausländische Obligationen.*

In percentage; ex interest. — *In %, exclusive Zinsen.*

	Terms of Redemption *Tilgungsmodalitäten* D = Drawings *Auslosung* P = Purchase *Rückkauf* R = Perpetual Loan *Staatsrente*	Redeemable in Whole *Konvertibel*	Interest Dates *Zinstermine* *	Prices (bid) *Notierungen (Geld)* 1941 30/6	29/7	29/8	30/9	27/10	
Danish Government . . . 4 % 1936[4]	1937—1956 D	15/5 1946	15/5—15/11	—	—	55	50	54	*Dänischer Staat* . . . . . 4 » 1936
» » . . . 3½ » 1938[4]	1944—1958 D P	1/11 1948	1/5— 1/11	65[6]	56	62[6]	50	51	» » . . . . . 3½ » 1938
Danish Mortgage Bank . . 4½ » 1931[2 4]	1936—1971 D P	25/3 1941	25/3—25/9	—	56	56	62	62	*Dän. Hypothekenbank* . . . 4½ » 1931[2]
Copenhagen, City of . . . 4½ » 1930[3 4]	1931—1970 D P	1/12 1941	1/6— 1/12	65	75[6]	60	65	65	*Stadt Kopenhagen* . . . . 4½ » 1930[3]
Finnish Government. . . . 4½ » 1934	1935—1944 D P	—	1/4—1/10	—	—	—	70	70¼	*Finnl. Staat* . . . . . 4½ » 1934

SKANDINAVISKA BANKEN

AKTIEBOLAG

Statement of Condition September, 30th, 1941

ASSETS.

Cash in hand	Kr.	258.308.668: 09
Swedish Treasury Bills	»	168.700.000: —
Swedish Bills Kr. 231.848.862: 23		
Foreign Bills » 145.566: 66	»	231.994.428: 89
Loans (secured)	»	439.690.866: 28
Current Account (secured)	»	80.358.619: 13
Swedish Banks and Savings Banks	»	15.407.510: 09
Foreign Banks	»	7.691.554: 33
Sundry Accounts	»	21.296.840: 44
Bonds	»	80.975.581: 60
Shares	»	126.554.049: 42
Bank Buildings & Furniture	»	17.230.095: —
	Kr.	1.448.208.213: 27

LIABILITIES.

Bills at sight in circulation (»postremiss» bills)	Kr.	15.953.249: 65
Deposits:		
at sight Kr. 240.118.931: 37		
at notice » 876.778.750: 67	»	1.116.897.682: 04
Swedish Banks	»	47.495.148: 64
Swedish Savings Banks	»	15.316.746: 37
Foreign Banks	»	31.788.615: 48
Sundry Accounts	»	58.756.771: 09
Share Capital Kr. 87.188.000: —		
Reserve Funds » 74.812.000: —	»	162.000.000: —
	Kr.	1.448.208.213: 27

SKANDINAVISKA
BANKEN
STOCKHOLM
GÖTEBORG
MALMÖ